IN THE SPECIFICATION

Please amend the 3rd full paragraph on page 3 of the specification as follows:

~~One example of a water treatment system using automatic analyzers is found in an article presented by Nelu Puznava et al., on October 3, 1998, entitled "Classicial Feedback/Feedforward Control Applied to Methanol Dosing for Post-Dentrification" (the Puznava et al reference). The Puznava et al. reference describes a feedback/feedforward control for methanol dosing for post-dentrification in an upflow floating biofilter system. The feedback and feed forward control are based on the on0line measurement of outlet and inlet nitrate concentrations, sending two signals to the control unit. Both sensors were for chemical analysis, influent nitrate and effluent nitrate concentrations.~~

Please replace the last paragraph on page 3 of the specification with the following paragraph:

Japanese Patent No. ~~No's. Sho 52-93160 and~~ Sho 51-130055 to Tokyo Shibaura Electric Co. ~~both~~ relates to an apparatus for control of the feed rate of water purification reagents. The apparatus consists of a source water quality measurement meter for measurement of water quality of the source water intake, a reagent feed device, a ratio setting device that maintains a ratio of the reagent feed rate to the source water intake, a settling water quality measurement meter that measures the water quality of settling water and outputs a signal, and a calculating control device that receives the output signals and sets the flow rate of the reagent and sets the

ratio setting device. The apparatus measures water quality factors such as source water turbidity, pH, alkalinity and temperature, not concentration of the reagents.

Please replace the last paragraph on page 4 of the specification with the following paragraph:

Other references that describe aspects of the relevant art are U.S. Patent No. 5,011,613 to Feray and Hubele, U.S. Patent No. 5,869,342 to Stannard et al., U.S. Patent No. 6,129,104 to Ellard et al., and U.S. Patent No. 6,346,198 to Watson and Armstrong, each of which is hereby incorporated by reference. Also of relevance is "Problems Involving in Automating the Waste-Water-Treatment Plant," by Raymond Kudukis, Ch. 10, pp. 74-78 of INSTRUMENTATION CONTROL AND AUTOMATION FOR WASTE-WATER TREATMENT SYSTEMS, ed. By J.F. Andrews et al. Permagon, NY USA, 1974. This reference states, inter alia, that attaining maximum efficiency of a wastewater treatment plant with automated control systems is expected to remain difficult given the fact that "periodic intensity due to storm flow or periodic lows during dry-weather spells . . . [result in] much of the time the flow into the plant is either above or below the maximum efficiency level." Also of relevance is WASTEWATER DISINFECTION – Manual of Practice FD-10, pp. 144-155, Water Environmental Federation, Alexandria, VA USA 1996, which teaches a number of standard feed control strategies for introduction of disinfectant to wastewater. None of these standard feed control strategies are directed to dual feeding into a side stream to provide dosing for the main flow, such as is disclosed and claimed herein.

Please amend the 1st full paragraph on page 5 of the specification as follows:

~~In specific preferred embodiments of this invention, chlorine dioxide is the chemical treatment for disinfection of a wastewater waste stream. Five references that provide relevant background information about disinfection and chlorine dioxide are "Guidelines for Drinking-Water Quality", 2nd Edition, World Health Organization, Geneva, "The Chlorine Dioxide Handbook," by Donald J. Gates, June 1998, AWWA, published as part of the Water Disinfection Series ANSI/NSF Guideline 61, Weast, R.C., "CRC Handbook of Chemistry and Physics", 52nd edition, p. D-105, 1971 (no month), and W.J. Masschelein's basic textbook entitled: "Chlorine Dioxide. Chemistry and Environmental Impact of Oxychlorine Compounds", pp. 112 to 145. 1979 (no month). Also, the disclosure in U.S. Patent Application Serial No. 10/430,360, entitled "Reactor for Production of Chlorine Dioxide, Methods of Production of Same, and Related Systems and Methods of Using the Reactor" is incorporated by reference.~~

Please amend the 2nd full paragraph on page 5 of the specification as follows:

~~The above patent and non-patent references, and all patents and other references cited in this disclosure, are hereby incorporated by reference into this disclosure.~~